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10/507134 PATENT
0020-5296PUS1

IN THE U.S. PATENT AND TRADEMARK OFFICE

Applicant: INOUE et al. Conf.: UNASSIGNED
Appl. No.: 10/507,134 Group: UNASSIGNED
Filed: September 10, 2004 Examiner: UNASSIGNED
For: MAGNETIC TAPE AND MAGNETIC TAPE
CARTRIDGE

L E T T E R

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

February 18, 2005

Sir:

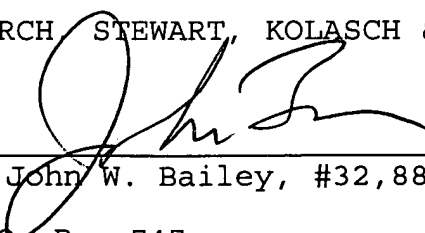
Subsequent to the filing of the above-identified application on September 10, 2004, attached hereto is an English translation of the International Preliminary Examination Report (IPER 409) that should be made of record in the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By


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JWB:enm
0020-5296PUS1

Attachment(s)



From the INTERNATIONAL BUREAU

PCTNOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

(PCT Rule 72.2)

To:

KAWAMIYA, Osamu
AOYAMA & PARTNERS
IMP Building, 3-7, Shiromi 1-chome, Chuo-ku
Osaka-shi, Osaka 540-0001
JAPON

Date of mailing (day/month/year) 20 January 2005 (20.01.2005)	
Applicant's or agent's file reference 663800	IMPORTANT NOTIFICATION
International application No. PCT/JP2003/009004	International filing date (day/month/year) 16 July 2003 (16.07.2003)
Applicant HITACHI MAXELL, LTD. et al	

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

2. Transmittal of the copy of the translation to the elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

AZ, CA, CH, CN, CO, EP, GH, KG, KR, MK, MZ, RO, RU, TM

The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, BA, BB, BG, BR, BY, BZ, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, ES, FI, GB, GD, GE, GM, HR, HU, ID, IL, IN, IS, KE, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, NI, NO, NZ, OA, OM, PG, PH, PL, PT, SC, SD, SE, SG, SK, SL, SY, TJ, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Yoshiko Kuwahara

Facsimile No.+41 22 740 14 35

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Translation

PATENT COOPERATION TREATY

PCT/JP2003/009004



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 663800	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP2003/009004	International filing date (day/month/year) 16 July 2003 (16.07.2003)	Priority date (day/month/year) 18 July 2002 (18.07.2002)
International Patent Classification (IPC) or national classification and IPC G11B 5/738, 5/706, 5/70, 5/735, 5/714, 5/78, 5/72		
Applicant HITACHI MAXELL, LTD.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 04 February 2004 (04.02.2004)	Date of completion of this report 30 June 2004 (30.06.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP2003/009004

I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☐ the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the claims:
 pages _____, as originally filed
 pages _____, as amended (together with any statement under Article 19
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the drawings:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

- These elements were available or furnished to this Authority in the following language _____ which is:
- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP03/09004

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application.
- ☒ claims Nos. 8 and 9, and the portions belonging to claims 8 and 9 in claims 10-13

because:

- ☐ the said international application, or the said claims Nos. _____
relate to the following subject matter which does not require an international preliminary examination (*specify*):

- ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _____
are so unclear that no meaningful opinion could be formed (*specify*):

- ☐ the claims, or said claims Nos. _____ are so inadequately supported
by the description that no meaningful opinion could be formed.

- ☒ no international search report has been established for said claims Nos. 8 and 9, and the portions belonging to claims 8 and 9 in claims 10-13

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

- ☐ the written form has not been furnished or does not comply with the standard.
- ☐ the computer readable form has not been furnished or does not comply with the standard.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP03/09004

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1-7, 10-13	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-7, 10-13	NO
Industrial applicability (IA)	Claims	1-7, 10-13	YES
	Claims		NO

2. Citations and explanations

Claims 1-7 and 10-13

Document 1: JP, 5-307736, A (Matsushita Electric Industrial Co., Ltd.), 19 November, 1993 (19.11.93), full text, all drawings (Family: none)

Document 2: JP, 5-307730, A (Matsushita Electric Industrial Co., Ltd.), 19 November, 1993 (19.11.93), full text, all drawings (Family: none)

Document 3: JP, 5-128487, A (Matsushita Electric Industrial Co., Ltd.), 25 May, 1993 (25.05.93), full text, all drawings (Family: none)

Document 4: JP, 5-46971, A (Matsushita Electric Industrial Co., Ltd.), 26 February, 1993 (26.02.93), full text, all drawings (Family: none)

Document 5: JP, 5-210835, A (Matsushita Electric Industrial Co., Ltd.), 20 August, 1993 (20.08.93), full text, all drawings (Family: none)

Document 6: JP, 5-73882, A (Matsushita Electric Industrial Co., Ltd.), 26 March, 1993 (26.03.93), full text, all drawings (Family: none)

Document 7: JP, 4-195819, A (Victor Company of Japan, Ltd.), 15 July, 1992 (15.07.92), full text, all drawings (Family: none)

Document 8: JP, 7-98834, A (Victor Company of Japan, Ltd.), 11 April, 1995 (11.04.95), full text, all drawings (Family: none)

Document 9: JP, 2001-67649, A (Fuji Photo Film Co., Ltd.), 16 March, 2001 (16.03.01), full text, all drawings (Family: none)

Document 10: JP, 2698770, B2 (Fuji Photo Film Co., Ltd.), 19 September, 1997 (19.09.97), full text, all drawings (Family: none)

Document 11: JP, 2000-123362, A (Sony Corp.), 28 April, 2000 (28.04.00), [0036] (Family: none)

Document 12: JP, 2000-11364, A (Toray Industries, Inc.), 14 January, 2000 (14.01.00), [0051] (Family: none)

Document 13: JP, 2002-100506, A (Fuji Photo Film Co., Ltd.), 5 April, 2002 (05.04.02), full text, all drawings (Family: none)

Document 14: JP, 2001-81506, A (Dowa Mining Co., Ltd.), 27 March, 2001 (27.03.01), full text, all drawings (Family: none)

Document 15: JP, 10-69629, A (Dowa Mining Co., Ltd.), 10 March, 1998 (10.03.98), full text, all drawings (Family: none)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP03/09004

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of : V.2

In this technical field, keeping sheet-like particles of a non-magnetic oxide contained between a non-magnetic base and a magnetic layer is a mere well-known technique. (See documents 1-8, etc.)

Furthermore, in this technical field, the problem of keeping a magnetic layer thin for achieving a higher density is well known, and especially documents 9-13 respectively suggest a magnetic layer with a thickness of 0.09 μm or less or a thickness of further less than 0.09 μm . The constitution in which the thickness of a magnetic layer is 0.09 μm or less is not special. Furthermore, the use of an iron-based magnetic powder consisting of needle-like particles for a magnetic layer is also a mere well-known technique. (See documents 13-15.)

Moreover, it is considered to be obvious for a person skilled in the art (1) to design a thin magnetic layer for realizing a higher density and (2) to select sheet-like particles of a non-magnetic oxide as non-magnetic inorganic particles contained in the underlying layer, for example, in document 11.

The applicant limits the particle size of the sheet-like particles of a non-magnetic oxide in a range from 10 to 100 nm as a condition for improving the tracking deviation, but in reference to the working examples and comparative examples of the present application, it is not considered that the limited numerical range has any critical significance. (In the working examples of the present application, a particle size of 50 nm only is used, and in Comparative Example 2 of the present application in which a particle size of 150 nm is used, an ordinary type of slitting machine is used.) Judging from these matters, the above-mentioned optimization of the average particle size of non-magnetic oxide particles contained in the underlying layer is within the ordinary creative ability of a person skilled in the art.

Furthermore, in this technical field, (1) recording servo signals for tracking control in a magnetic layer or back coat layer and (2) magnetically or optically recording the servo signals are well-known and commonly used techniques.